

**Amendments to the Claims:**

This listing of the claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1 (Currently Amended). A method for reducing secondary neuronal degeneration that follows neuronal damage caused by an injury, disease, disorder or condition in the central or peripheral nervous system of an individual in need thereof, comprising:

causing T cells activated against a nervous system (NS)-specific antigen which, in its native state, is present at the site of secondary neuronal degeneration, to accumulate at the site of secondary neuronal degeneration in the individual in need, thereby reducing secondary neuronal degeneration at that site, wherein, when the individual in need has an autoimmune disease, the NS-specific antigen is not the autoimmune antigen of that disease, and when the individual in need has a neoplasm, the NS-specific antigen is one that does not appear in the neoplasm,

wherein said causing step is accomplished by -

administering an effective amount of (i) said NS-specific antigen, (ii) an immunogenic or cryptic epitope thereof, or (iii) a modification of (i) that is immunogenic ~~but not encephalitogenic~~ and maintains at least 90% identity with (i), in such a manner as to cause a T cell response thereto, such that T cells become activated against the NS-

specific antigen which is present at the site of secondary neuronal degeneration; or

administering an effective amount of T cells that are activated against said NS-specific antigen, said immunogenic or cryptic epitope thereof, or said modification thereof.

2 (Previously Presented). A method in accordance with claim 1, wherein said activated T cells are caused to accumulate at the site of secondary neuronal degeneration by administering an effective amount of said NS-specific antigen, said immunogenic or cryptic epitope thereof, or said modification thereof, in such a manner as to cause a T cell response thereto, such that T cells become activated against the NS-specific antigen which is present at the site of secondary neuronal degeneration.

3 (Previously Presented). A method in accordance with claim 1, wherein said activated T cells are caused to accumulate at the site of secondary neuronal degeneration by administering an effective amount of T cells that are activated against said NS-specific antigen, said immunogenic or cryptic epitope thereof, or said modification thereof.

4. (Original). A method in accordance with claim 3, wherein said T cells are autologous.

5. (Original). A method in accordance with claim 1, wherein the individual in need is one suffering from an injury that has caused primary neuronal damage.

6 (Canceled).

7 (Previously Presented). A method in accordance with claim 1, wherein the individual in need is one suffering from a disease, disorder or condition that has neurodegenerative effects.

8 (Canceled).

9 (Previously Presented). A method for ameliorating the secondary neurodegenerative effects of an injury, disease, disorder or condition that causes secondary neuronal degeneration of the central or peripheral nervous system of an individual in need thereof, comprising:

causing T cells activated against a nervous system (NS)-specific antigen which, in its native state, is present at the site of secondary neuronal degeneration, to accumulate at the site of secondary neuronal degeneration in the individual in need, thereby ameliorating the effects of the injury, disease, condition or disorder at that site, wherein, when the individual in need has an autoimmune disease, the NS-specific antigen is not the autoimmune antigen of that disease, and when the individual in need has a neoplasm, the NS-specific antigen is one that does not appear in the neoplasm,

wherein said causing step is accomplished by -

administering an effective amount of (i) said NS-specific antigen, (ii) an immunogenic or cryptic epitope thereof, or (iii) a modification of (i) that is immunogenic ~~but not encephalitogenic~~ and maintains at least 90% identity with (i), in such a manner as to cause a T cell response

thereto, such that T cells become activated against the NS-specific antigen which is present at the site of secondary neuronal degeneration; or

administering an effective amount of T cells that are activated against said NS-specific antigen, said immunogenic or cryptic epitope thereof, or said modification thereof.

10 (Previously Presented). A method in accordance with claim 9, wherein said activated T cells are caused to accumulate at the site of secondary neuronal degeneration by administering an effective amount of said NS-specific antigen, said immunogenic or cryptic epitope thereof, or said modification thereof, in such a manner as to cause a T cell response thereto, such that T cells become activated against the NS-specific antigen which is present at the site of secondary neuronal degeneration.

11 (Previously Presented). A method in accordance with claim 9, wherein said activated T cells are caused to accumulate at the site of secondary neuronal degeneration by administering an effective amount of T cells that are activated against said NS-specific antigen, said immunogenic or cryptic epitope thereof, or said modification thereof.

12 (Original). A method in accordance with claim 11, wherein said T cells are autologous.

13 (Original). A method in accordance with claim 9, wherein the individual in need is one suffering from an injury that has caused primary neuronal damage.

14 (Canceled).

15 (Original). A method in accordance with claim 9, wherein the individual in need is one suffering from a disease, condition or disorder that has neurodegenerative effects.

16 (Canceled).

17 (Previously Presented). The method according to claim 3, wherein said T cells are semi-allogeneic T cells.

18 (Previously Presented). The method according to claim 3, wherein said activated T cells have been sensitized to said NS-specific antigen, said immunogenic or cryptic epitope thereof, or said modification thereof.

19 (Previously Presented). The method according to claim 3, wherein the NS-specific antigen is selected from the group consisting of myelin basic protein (MBP), myelin oligodendrocyte glycoprotein (MOG), proteolipid protein (PLP), myelin-associated glycoprotein (MAG), S-100,  $\beta$ -amyloid, Thy-1, P0, P2, and a neurotransmitter receptor.

20 (Previously Presented). The method according to claim 19, wherein the NS-specific antigen is MBP.

21 (Previously Presented). The method according to claim 19, wherein the NS-specific antigen is selected from the group consisting of Nogo-A, Nogo-B, Nogo-C, and Nogo receptor.

22 (Previously Presented). The method according to claim 18, wherein activated T cells have been sensitized to an immunogenic epitope or a cryptic epitope of said NS-specific antigen.

23 (Previously Presented). The method according to claim 22, wherein said an immunogenic epitope or cryptic epitope is one derived from MBP.

24 (Previously Presented). The method according to claim 23, wherein said activated T cells have been sensitized to a peptide selected from the group of sequences consisting of the sequences p11-30, p51-70, p87-99, p91-110, p131-150, and p151-170 of MBP.

25 (Previously Presented). The method according to claim 24, wherein said peptide corresponds to the sequence p51-70 of MBP.

26 (Previously Presented). The method according to claim 22, wherein said immunogenic epitope or cryptic epitope is one derived from MOG.

27 (Previously Presented). The method according to claim 26, wherein said activated T cells have been sensitized to the sequence p35-55 of MOG.

28 (Previously Presented). The method according to claim 22, wherein said immunogenic epitope or cryptic epitope is one derived from Nogo.

29 (Previously Presented). The method according to claim 28, wherein said activated T cells have been sensitized to the Nogo-A p472 peptide (SEQ ID NO:19).

30 (Previously Presented). The method according to claim 22, wherein said immunogenic epitope or cryptic epitope is one derived from Nogo receptor.

31 (Previously Presented). The method according to claim 4, wherein said autologous T cells have been stored for future use.

32 (Previously Presented). The method according to claim 2, wherein the NS-specific antigen is selected from the group consisting of myelin basic protein (MBP), myelin oligodendrocyte glycoprotein (MOG), proteolipid protein (PLP), myelin-associated glycoprotein (MAG), S-100,  $\beta$ -amyloid, Thy-1, P0, P2, and a neurotransmitter receptor.

33 (Previously Presented). The method according to claim 32, wherein the NS-specific antigen is MBP.

34 (Previously Presented). The method according to claim 33, wherein the MBP is administered orally.

35 (Previously Presented). The method according to claim 2, wherein the NS-specific antigen is selected from the group consisting of Nogo-A, Nogo-B, Nogo-C, and Nogo receptor.

36 (Previously Presented). The method according to claim 2, wherein said NS-specific antigen, immunogenic or cryptic epitope thereof, or modification thereof, is an immunogenic or cryptic epitope of said NS-specific antigen.

37 (Previously Presented). The method according to claim 36, wherein said immunogenic or cryptic epitope is one derived from MBP.

38 (Previously Presented). The method according to claim 37, wherein said immunogenic or cryptic epitope is a peptide selected from the sequences consisting of the

sequences p11-30, p51-70, p87-99, p91-110, p131-150, and p151-170 of MBP.

39 (Previously Presented). The method according to claim 38, wherein said peptide corresponds to the sequence p51-70 of MBP.

40 (Previously Presented). The method according to claim 36, wherein said immunogenic or cryptic epitope is one derived from MOG.

41 (Previously Presented). The method according to claim 40, wherein said immunogenic or cryptic epitope is a peptide with the sequence p35-55 of MOG.

42 (Previously Presented). The method according to claim 36, wherein said immunogenic or cryptic epitope is one derived from Nogo.

43 (Previously Presented). The method according to claim 42, wherein said immunogenic or cryptic epitope is the Nogo-A p472 peptide (SEQ ID NO:19).

44 (Previously Presented). The method according to claim 36, wherein said immunogenic or cryptic epitope is one derived from Nogo receptor.

45 (Previously Presented). The method according to claim 2, wherein said NS-specific antigen, immunogenic or cryptic epitope thereof, or modification thereof, is administered intravenously, intrathecally, intramuscularly, intradermally, topically, subcutaneously, or mucosally.

46 (Previously Presented). The method according to claim 45, wherein said mucosal administration is selected from



the group consisting of oral, intranasal, buccal, vaginal and rectal administration.

47 (Previously Presented). The method according to claim 46, wherein said NS-specific antigen, immunogenic or cryptic epitope thereof, or modification thereof, is administered orally and the individual is actively immunized to build up a critical T cell response.

48 (Previously Presented). The method according to claim 5, wherein said injury is spinal cord injury.

49 (Previously Presented). The method according to claim 13, wherein said injury is spinal cord injury.

50 (Currently Amended). A method in accordance with claim 1, wherein said modification of (i) that is immunogenic ~~but not encephalitogenic~~ and maintains at least 90% identity with (i) is a modification that consists of the replacement of one or more amino acid residues of (i) by different amino acid residues at the T-cell receptor binding site, said modification of (i) still being capable of recognizing the T-cell receptor recognized by the NS-specific antigen of (i), but the modification of (i) being less encephalitogenic than (i).

51 (Currently Amended). A method in accordance with claim 9, wherein said modification of (i) that is immunogenic ~~but not encephalitogenic~~ and maintains at least 90% identity with (i) is a modification that consists of the replacement of one or more amino acid residues of (i) by different amino acid residues at the T-cell receptor binding site, said

modification of (i) still being capable of recognizing the T-cell receptor recognized by the NS-specific antigen of (i), but the modification of (i) being less encephalitogenic than (i).